

RECEIVED
CENTRAL FAX CENTER

AUG 30 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A drive circuit for a firing cap, triggerable by an electric direct current firing pulse, of a vehicle restraint system, the drive circuit comprising:

a firing circuit connected between a supply voltage of a first potential, and a reference voltage of a second potential, said firing circuit containing:

a high side switch having a control electrode and a controlled path connected to the firing cap;

a low side switch having a control electrode and a controlled path connected to the firing cap, said high side switch, the firing cap and the low side switch being connected in series, said firing circuit being activated by a drive signal fed simultaneously to said control electrode of said high side switch and of said low side switch for feeding a firing current to the firing cap during the firing pulse;

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

a power switching element having a controlled path
connected in series with said controlled path of said
high side switch and of said low side switch to draw lost
power from said firing circuit during the firing pulse;
and

a capacitor for storing energy and connected in parallel with
said firing circuit.

Claim 2 (original): The drive circuit according to claim 1,
further comprising a control device for switching on said
power switching element at least during the firing pulse, and
then switching said power switching element off again, said
power switching element is a switching element which can be
switched on and off and is connected to said control device.

Claim 3 (original): The drive circuit according to claim 2,
wherein said control device switches on said power switching
element before a start of the firing pulse.

Claim 4 (original): The drive circuit according to claim 1,
wherein said high side switch and said low side switch are
integrated and form an integrated circuit chip, said power
switching element is connected externally to said integrated
circuit chip.

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

Claim 5 (original): The drive circuit according to claim 1,
wherein:

said high side switch is a P-type channel FET;

said low side switch is an N-type channel FET;

said power switching element is an N-type channel power FET;
and

the first potential is a high potential and the second
potential is a low potential.

Claim 6 (original): The drive circuit according to claim 5,
wherein said N-type channel power FET is wired to operate as a
source follower during a switched-on period.

Claim 7 (original): The drive circuit according to claim 5,
wherein said N-type channel power FET contains a reverse
diode.

Claim 8 (original): The drive circuit according to claim 7,
wherein said high side switch and said low side switch both
have a reverse current blocking function.

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

Claim 9 (original): The drive circuit according to claim 1, wherein said high side switch and said low side switch together define one of a plurality of pairs which are assigned to a respective said firing circuit and integrated in an integrated circuit, and said power switching element, which is connected outside said integrated circuit, is common to all said firing circuits.

Claim 10 (original): The drive circuit according to claim 1, wherein the vehicle restraint system is an airbag restraint system in a motor vehicle.

Claim 11 (new): A vehicle restraint system, comprising:

one or more firing circuits, each firing circuit being assigned to a respective firing cap and triggerable by an electric direct current firing pulse;

each firing circuit being connected between a supply voltage of a first potential, and a reference voltage of a second potential and including:

a high side switch having a control electrode and a controlled path connected to the firing cap;

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

a low side switch having a control electrode and a controlled path connected to the firing cap, said high side switch, the firing cap and the low side switch being connected in series, said firing circuit being activated by a drive signal fed simultaneously to said control electrode of said high side switch and of said low side switch for feeding a firing current to the firing cap during the firing pulse;

a power switching element having a controlled path connected in series with said controlled path of said high side switch and of said low side switch to draw lost power from said firing circuit during the firing pulse;
and

a capacitor for storing energy and connected in parallel with said firing circuit; and

said high side switches and said low side switches of each firing circuit being integrated and forming an integrated circuit chip, and said power switching element being connected externally to said integrated circuit chip and provided in common to all pairs of said integrated high side switches and low side switches.

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

Claim 12 (new): The vehicle restraining system of claim 11, further including a control device for switching on said power switching element at least during the firing pulse, and switching said power switching element off again, said, power switching element being a switching element which can be switched on and off and being connected to said control device.

Claim 13 (new): The vehicle restraint system of claim 12, wherein said control device switches on said power switching element before the start of a firing pulse.

Claim 14 (new): The vehicle restraint system of claim 11, wherein:

said high side switch is a P-type channel FET;

said low side switch is an N-type channel FET;

said power switching element is an N-type channel power FET;
and

the first potential is a high potential and the second potential is a low potential.

Applic. No. 10/723,939
Response Dated August 30, 2006
Responsive to Office Action of May 30, 2006

Claim 15 (new): The drive circuit according to claim 14,
wherein said N-type channel power FET is wired to operate as a
(new): source follower during a switched-on period.

Claim 16 (new): The vehicle restraint system of claim 14,
wherein said N-type channel power FET contains a reverse
diode.

17 (new): The vehicle restraint system according to claim 16,
wherein said high side switch and said low side switch both
have a reverse current blocking function.

18 (new): The vehicle restraint system of claim 11, wherein
the vehicle restraint system is an airbag restraint system in
a motor vehicle.